

1. Draw a $45 - 45 - 90$ triangle showing all its sides.

Use the diagram above, to determine the exact values of the following ratios.

2. $\cos 45^\circ$

3. $\sin 45^\circ$

4. $\tan 45^\circ$

5. $(\sin 45^\circ)^2$

6. $(\cos 45^\circ)^2$

7. $\tan 45^\circ \cos 45^\circ$

8. $\cot 45^\circ$

9. $\csc 45^\circ$

10. $\sec 45^\circ$

11. $\csc 45^\circ \tan 45^\circ$

12. $\sec 45^\circ \sin 45^\circ$

13. $(\cot 45^\circ)^2$

14. $\cot 45^\circ \sin 45^\circ \cos 45^\circ$

15. $\sin 45^\circ \tan 45^\circ$

16. $\csc 45^\circ \sec 45^\circ$

17. $\tan 45^\circ \cot 45^\circ$

18. $(\cos 45^\circ)^2 + (\sec 45^\circ)^2$

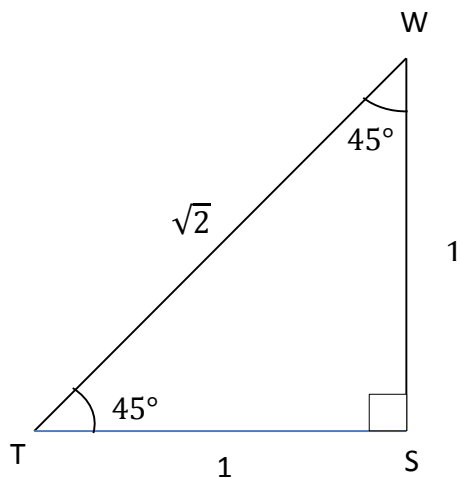
19. $\cos 45^\circ \cos 45^\circ - \tan 45^\circ$

20. $\sin 45^\circ (\csc 45^\circ)^2$

Answer keys

Day 98:

1.



2. $\frac{1}{\sqrt{2}}$

3. $\frac{1}{\sqrt{2}}$

4. 1

5. $\frac{1}{2}$

6. $\frac{1}{2}$

7. $\frac{1}{\sqrt{2}}$

8. 1

9. $\sqrt{2}$

10. $\sqrt{2}$

11. $\sqrt{2}$

12. 1

13. 1

14. $\frac{1}{2}$

15. $\frac{1}{\sqrt{2}}$

16. 2

17. 1

18. 1

19. $-\frac{1}{2}$

20. $\sqrt{2}$